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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,609	12/20/2001	Jason F. Hunzinger	09752-149001	4538
27572	7590	10/27/2003	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			CHOW, CHARLES CHIANG	
			ART UNIT	PAPER NUMBER
			2685	

DATE MAILED: 10/27/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/029,609

Applicant(s)

HUNZINGER, JASON F.

Examiner

Charles Chow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-27 and 44-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-27 and 44-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

**Office Action for
Applicant's Amendment
(9/11/2003)**

1. Regarding the previous office action, the final rejection is withdrawn. Because reference Hunzinger (US 6,501,947 B1) is assigned to Denso Corporation, and Hunzinger is removed from rejection.
2. Regarding applicant's amendment based on the no teachings for a parameter which identifies a communication protocol reason for the number of failures have occurred for the same communication protocol reason, the ground of rejection has been changed by replacing Hunzinger-947 B1 with Rappaport et al. (US 6, 477,373 B1).

Regarding a parameter which identifies a communication protocol reason for the number of failures have occurred for the same communication protocol reason, Rappaport et al. (also as Rappaport in below) teaches the parameter, channel resource, for identifying the failure of communication protocol (col. 30, lines 13-26), for the connection failure due to channels being fully occupied. Rappaport teaches the communication protocol, such as call types, platform mobility, handoff status, and user class criteria (abstract).

Rappaport further teaches the reconnection of suspended session based upon service level, attributes, and priority level (col. 37, lines 39 to col. 38, line 34). Rappaport further teaches the reconnection attempts is based upon the call blocking probability and handoff failure probability (Fig. 4-7, Fig. 13, in column 3). Rappaport teaches the counter for the number of connection failure for the same communication protocol (as shown in the steps 25, 34, 29 in Fig. 2; col. 38, lines 24-34).

Rappaport teaches the efficient automatic and transparently attempting to reconnect the

failure links for a mobile communication system, based upon the call types, platform mobility, handoff status, and user class criteria, with a counter for maximum number of reconnection attempts (abstract, col. 1, lines 20-26; col. 2, lines 23-58; Fig. 1-3, Fig. 14-15).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 18, 23, 44-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spear (US ,811,380) in view of Rappaport (US 6,477,373 B1).

Regarding **claim 18**, Spear discloses a mobile station (Radio telephone unit 130, Fig. 1C) for use in wireless communication system (cellular radiotelephone system, Fig. 1A; col. 2, line 64; col. 2, line 58 to col. 3, line 18), for protecting dropped call, according to the determining means of the radio telephone 130 to request call reconnection (abstract; col. 1, lines 6-13; Fig. 4, reconnection 440).

Spear discloses a transceiver which transmits a connection request to the wireless comm. system (Fig. 1C, the receiver 144/transmitter 146 for transmitting of the call reconnection request, in abstract).

Spear discloses the microcomputer in supervisory unit 150 which determines the connection request fails (the radiotelephone comprising first means for determining the active call has

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been lost, to indicate to system of the request for reconnection of the lost call; col. 9, line 46 to col. 10, line 8).

Spear discloses the signal strength parameter is monitored for identifying the reason of the lost call or failure (in col. 5, lines 50-65, Fig. 1C, 156).

In the above, it does not clearly indicate a parameter which identifies a communication protocol reason for the number of failures have occurred for the same communication protocol reason.

Rappaport teaches a parameter which identifies a communication protocol reason for the number of failures have occurred for the same communication protocol reason, because Rappaport teaches the parameter, channel resource, for identifying the failure of communication protocol (col. 30, lines 13-26), for the connection failure due to channels being fully occupied. Rappaport teaches the communication protocol, such as call types, platform mobility, handoff status, and user class criteria (abstract). Rappaport further teaches the reconnection of suspended session based upon service level, attributes, and priority level (col. 37, lines 39 to col. 38, line 34). Rappaport further teaches the reconnection attempts is based upon the call blocking probability and handoff failure probability (Fig. 4-7, Fig. 13, in column 3). Rappaport teaches the counter for the number of connection failure for the same communication protocol (as shown in the steps 25, 34, 29 in Fig. 2; col. 38, lines 24-34). Rappaport teaches the efficient automatic and transparently attempting to reconnect the

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failure links for a mobile communication system, based upon the call types, platform mobility, handoff status, and user class criteria, with a counter for maximum number of reconnection attempts (abstract, col. 1, lines 20-26; col. 2, lines 23-58; Fig. 1-3, Fig. 14-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Spear above, and to include Rappaport's efficient automatic, transparent, reconnection for the connection failure due to communication protocol of service level, priority, mobility, call blocking, or user class, such that the mobile system could efficiently establish the call connection.

Regarding **claim 23**, Spear teaches the transmitting of the first connection request from the radiotelephone 130. Spear also has shown above the second reconnection request for reconnection (in abstract), and Rappaport has taught above the parameter of the retry counts, and failure reason due to channel fully occupied, service level, priority, mobility, user class. Rappaport teaches a parameter which identifies a communication protocol reason for the number of failures have occurred for the same communication protocol reason, because Rappaport teaches the parameter, channel resource, for identifying the failure of communication protocol (col. 30, lines 13-26), for the connection failure due to channels being fully occupied. Rappaport teaches the communication protocol, such as call types, platform mobility, handoff status, and user class criteria (abstract). Rappaport further teaches the reconnection of suspended session based upon service level, attributes, and priority level (col. 37, lines 39 to col. 38, line 34). Rappaport further teaches the reconnection attempts is based upon the call blocking probability and handoff failure probability (Fig. 4-7, Fig. 13, in column 3). Rappaport teaches the counter for the number of connection failure for the same

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communication protocol (as shown in the steps 25, 34, 29 in Fig. 2; col. 38, lines 24-34).

Rappaport teaches the efficient automatic and transparently attempting to reconnect the failure links for a mobile communication system, based upon the call types, platform mobility, handoff status, and user class criteria, with a counter for maximum number of reconnection attempts (abstract, col. 1, lines 20-26; col. 2, lines 23-58; Fig. 1-3, Fig. 14-15).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Spear above, and to include Rappaport's efficient automatic, transparent, reconnection for the connection failure due to communication protocol of service level, priority, mobility, call blocking, or user class, such that the mobile system could efficiently establish the call connection.

Regarding **claims 44, 46**, referring to claims 18, 23 above, for a mobile station for wireless communication system, a transceiver transmits a connection request to the wireless communication system, and a processor for determining a parameter identifying a failure has occurred, from Spear, Rappaport, and the counting of number of times that failure has occurred, from Rappaport above.

Regarding **claims 45, 47**, the failure comprising a communication protocol failure from Rappaport above, in combination with the

4. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spear in view of Rappaport, as applied to claim 18 above, and further in view of Tiedemann Jr. et al. (US 5,999,816).

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In the above, it does not clearly indicate the using said stored parameters.

Regarding **claim 19**, Tiedemann teaches the adapting system access parameters using stored parameters (the method and apparatus for mobile assisted handoff, title, abstract). The mobile station transmits parameter data having pilot search list for reattempting of establishing connection to the wireless system, and the search list is the stored parameter in the mobile station, such that the mobile could transmit the search offset list to the system for establishing connection, col. 19, lines 46-65). It would be obviously to include Tiedemann's stored parameter data for establishing the connection, such that the system would efficiently provide the service based upon the received parameter information. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Spear above, and to include Tiedemann's stored parameter data for establishing the connection, to Spear as modified above, such that the system would efficiently provide the service based upon the received parameter information.

Regarding **claim 20**, Rappaport above teaches the connection request including service level, attributes, priority level (col. 38, lines 3-18), for the connection request

Regarding **claim 21**, referring to examiner's comment in Tiedemann that the transceiver receives instruction based on the parameter data and to determine a time to reattempt the connection or waiting for a interval after the attempt/reattempt connection in shown in col. 19, lines 46-65).

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5. Claims 22, 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spear in view of Rappaport, as applied to claims 18, 23 above, and further in view of Amin et al. (US 5,995,830).

In the above it does not clearly indicate the reasons of the previously failed reconnection. Amin teaches **claim 22**, a system having mobile switching center 110, base station 114, mobile telephone 116, Fig. 1, abstract, title, for processing dropped calls. The system determines the reason that call has dropped, and whether to attempt the reconnection, as shown in col. 7, lines 13-25; col. 8, lines 47-58). Amin system considers the reasons as shown in table 1; col. 3, lines 51-63, col. 5, lines 1-18, such as those reason groups for mobile travel outside area; handoff with insufficient channels; coverage hole; MSC error; interference. It would be obvious to include Amin's reasons for the failed connections to Spear as modified above, such that the system could accurately recover the connection based on the failure reasons. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Spear above, and to include Amin connection lost listing as shown above, such that the system could accurately recover the connection based on the failure reasons.

Regarding **claim 25**, referring to examiner comment above for the receiving instruction for the next connection request from Amin (col. 8, lines 16-18, the sending a reconnection indication to the other device upon a successful reconnection).

Regarding **claim 26**, referring to Amin in claim 22 above for the reason for the connection request failures group.

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Regarding **claim 27**, referring to Amin for the modifying the aggressiveness of the connection request from Amin's analyzing a mobile assisted handoff list previously received from said wireless telephone (col. 8, lines 46-47).

6. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spear in view of Rappaport, as applied to claims 23 above, and further in view of Wicher et al. (US 5,608,643).

Regarding **claim 24**, referring to examiner comment in claim Amin above for the number of time failed for particular parameter reason; and the failures parameter for reconnection in Table 1. Wichter teaches the included transmitted message has retry count, reason code, for the next connection request.

Wichter teaches the transmitted message having a parameter indicating a number of times that the reason has occurred, and storing the parameter indicating the number of time that the reason has occurred (for the cellular radio network 12, Fig. 1, which comprises the dispensing unit 10 for maintaining the stock food level in the Bins). The dispensing unit 10 transmits/receives information from the system controller 14 (col. 3, lines 59 to col. 4, line 5). Wichter teaches the dispensing unit 10 transmits communication-retry-counts and reason-code associated with the retried activity event to the controller 14, for the reconnection reasons (col. 8, lines 32-38). It would be obvious to include Wichter's transmitting of the retry count for establishing of the communication connection with the system controller 14,

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such that the system could be upgraded with the information of the retried communication counts and reason codes, such that the system could efficiently determine the reconnection attempt situation based on the retry counts and reasons. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Spear, and to include Wichter's retry count for establishing the communication link, such that the system could efficiently determine the reconnection attempt situation based on the received retry counts and reason code.

***Response to Arguments
And
Conclusion***

7. Applicant's arguments with respect to claims 18-27, 44-47, have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant's amendment for no teachings for a parameter which identifies a communication protocol reason for the number of failures have occurred for the same communication protocol reason, the ground of rejection has been changed by replacing Hunzinger-947 B1 with Rappaport et al. (US 6, 477,373 B1).

Regarding a parameter which identifies a communication protocol reason for the number of failures have occurred for the same communication protocol reason, teaches the parameter, channel resource, for identifying the failure of communication protocol (col. 30, lines 13-26), for the connection failure due to channels being fully occupied. Rappaport teaches the communication protocol, such as call types, platform mobility, handoff status, and user class criteria (abstract).

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Rappaport further teaches the reconnection of suspended session based upon service level, attributes, and priority level (col. 37, lines 39 to col. 38, line 34). Rappaport further teaches the reconnection attempts is based upon the call blocking probability and handoff failure probability (Fig. 4-7, Fig. 13, in column 3). Rappaport teaches the counter for the number of connection failure for the same communication protocol (as shown in the steps 25, 34, 29 in Fig. 2; col. 38, lines 24-34).

Rappaport teaches the efficient automatic and transparently attempting to reconnect the failure links for a mobile communication system, based upon the call types, platform mobility, handoff status, and user class criteria, with a counter for maximum number of reconnection attempts (abstract, col. 1, lines 20-26; col. 2, lines 23-58; Fig. 1-3, Fig. 14-15).

In view of the teachings, claims 18-27, 44-47 are remaining in the rejection manner.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Chow whose telephone number is (703)-306-5615.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (703)-305-4385.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: (703) 872-9314 (for Technology Center 2600 only)

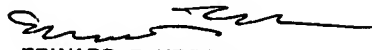
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Charles Chow

October 10, 2003.


EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600